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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Timothy M Shively et al

Examiner: Kevin R Kruer

Serial No: 10/729,587

Art Unit: 1773

Filed: 12/06/2003

Docket No: P477

For: FIRE RETARDANT SHADES

March 15, 2005

Mail Stop: Amendment
Commissioner for Patents
P O Box 1450
Alexandria, VA 22313-1450AMENDMENT "B"

In response to Office Action dated 12/16/2004, please amend the claims 1, 2, 11 and 19 by deleting the strike-through portions and inserting the underlined portions as shown in Attachment (A) and by adding new claim 21.

COMMENTS

Enclosed is a Credit Card Payment Form PTO-2038 for \$50.00 in payment of the fee for one claim in excess of 20.

Claim 1, 11, and 19 have been amended to clarify that the shade in use has designated inner and outer sides and to include a further limitation that a UV absorbing material is provided in the fire retardant containing layers and/or in a layer outwardly of a fire retardant layer.

The composite in Claim 1 and sun shade in Claim 11 and Claim 19 require that the composite is a clear transparent composite with inner and outer film layers, at least one film layer containing a fire retardant (FR) and an adhesive layer between the film layers also containing FR. The composite has a visible light transmission between 1-90%, haze below 10% and UV absorber provided in film layers as discussed above.

None of the cited art shows a similar combination of materials and properties.

US 6569 928 (Levchik) relates to problems associated with incorporating FR into PET

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films. In Col 1 lines 50-60 Levchik discusses the adverse surface effects which are caused by surface migration of FRs due to the poor solubility of FR in PET films. The whole document aims to provide a phosphorous containing FR which does not migrate to the surface. There is no disclosure in Levchik that: a)the PET/adhesive composite is transparent b) the composite has low haze optical properties c) that the adhesive may contain FR, or d) the use of UV absorber in specific layers

The applicant has found that the presence of FR in the PET film alone is not sufficient to provide a composite shade which meets the most stringent FR requirements.

US 4185 046 (Pengilly) discloses an adhesive containing FR which can be used to coat PET film and other flammable substrates to act as a fire retardant for itself and the PET film/adhesive composite(see Col 1 lines 4-9). The composite disclosed in Col 3 line 40 to Col 4 line 15. comprises PET film, aluminum foil, and paper. The composite is opaque due to the aluminum foil and the document is silent on the optical properties of the composite and the use of a UV absorber.

Pengilly at Col 2 line 65- Col 3 line 5 discusses the problems associated with the use of FR in an adhesive and states that the adhesive can be somewhat hazy due to the presence of FR.

The applicant has found that the presence of FR in the adhesive alone is not sufficient to provide a transparent composite shade which meets the most stringent FR requirements.

US 4978 181 (Inanuma) discloses a sun shade comprised of a transparent composite. Inanuma does not disclose the use of FR materials in the sunshade and is totally silent on the problems associated with the incorporation of FR materials into transparent polymeric materials.

There is NO incentive to combine the teachings of Inunuma & Pengilly since any

person reading Pengilly will realize that there is a potential problem due haze caused by FR in the adhesive.

Even if Inanuma & Pengilly are considered an allowable combination of documents, the mere combination of Inanuma with Pengilly will NOT produce the presently claimed invention. If the adhesive layers 6 & 10 in Inanuma are replaced by the adhesive of Pengilly then the composite does not have a polymeric film layer containing FR material as is required in the present invention.

The present invention also requires that the composite contain a UV absorber. The UV absorber is arranged in specified layers to prevent the FR materials causing the composite to yellow or bronze on aging. This problem with FR composite is not disclosed in any of the cited art.

The present Invention is novel and inventive. The applicants have arrived at a transparent composite shade material which has low haze, contains FR material in at least one film layer and the adhesive layer, and also includes a UV absorber to prevent discoloration of the Fr material on aging.

With regard to Claims 17,18,19,& 20 the present invention is the first disclosure of a sun shade having sound deadening characteristics. Once the present invention has been conceived then it might be obvious to use the teachings of Fuchs and Jablonka. However, the invention is the realization that a shade can also be used for sound deadening.

None of the cited art, either singly or in combination, discloses the invention as now claimed in Claims 1, 11, & 19.

For the reasons given above, it is believed that the claims as presently amended should now be allowable and such action is respectfully requested.

If the examiner feels that are still a few minor matters to be resolved before issuing a

notice of allowance, Applicants' attorney would welcome a phone call from the Examiner at the below listed phone number.

Respectfully submitted,



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Certificate of Transmittal

I hereby certify that this correspondence is being facsimile transmitted to the US Patent and Trademark Office (Fax No. (703) 872-9306) on March 15, 2005.

Paul E Milliken

Signature 